B.) REMARKS

This Response is filed in response to the Office Action dated July 28, 2006.

Upon entry of this Response, claims 1-24 will be pending in the Application.

In the outstanding Office Action, the Examiner rejected claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable over Jadric et al. (U.S. Publication No. 2003/0098668) in view of Kumar et al. (U.S. Patent No. 5,691,625) and Waltz (U.S. Patent No. 5,283,708); and rejected claims 8-24 under 35 U.S.C. § 103(a) as being unpatentable over Jadric et al. (U.S. Publication No. 2003/0098668) in view of Kumar et al. (U.S. Patent No. 5,691,625) and Waltz (U.S. Patent No. 5,283,708) in further view of Rafuse, Jr. et al. (U.S. Patent No. 5,797,729).

Rejection under 35 U.S.C. 103

A. Rejection of claims 1-7

The Examiner rejected claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable over Jadric et al. (U.S. Publication No. 2003/0098668), hereafter referred to as "Jadric," in view of Kumar et al. (U.S. Patent No. 5,691,625), hereafter referred to as "Kumar," and Waltz (U.S. Patent No. 5,283,708), hereafter referred to as "Waltz."

Specifically, the Examiner stated that

> With respect to claims 1, Jadric teaches a drive system comprising a variable speed drive, the variable speed drive comprising a converter stage [Fig 1, 10] to convert an input AC voltage to a DC voltage, the converter stage being configured to be electrically connectable to an AC power source [Fig. 1, V LINE]; a DC link stage [Fig. 1, 12] to filter and store energy from the converter stage, the DC link stage being electrically connected to the converter stage; an inverter stage [Fig 1, 14] electrically connected in parallel to the DC link stage [Fig. 1, 12], the inverter being configured to converter a DC voltage to an output AC voltage to power a motor [Fig.1, 16], wherein the converter stage [Fig. 1, 10] is configured to provide a boosted DC voltage to the DC link stage [Page 1, paragraph 0009] and the inverter is configured to provide an output AC voltage greater than the input AC voltage. However, Jadric does not disclose an inverter stage comprising a plurality of inverters, and each inverter of the plurality of

inverters being connected to a plurality of motors; a plurality of connecting mechanisms, each connecting mechanism of the plurality of connecting mechanisms being connected in series between an inverter and a corresponding motor, and that each connecting mechanism being configured to disconnected an inverter from a corresponding motor in response to receiving a control signal.

Kumar teaches an inverter stage comprising a plurality of inverters [Fig. 2, INV 5, INV 6], each inverter of the plurality of inverters being configured to converter a DC voltage to an output AC voltage to power a corresponding motor of a plurality of motors [Fig. 2, TM 5, TM 6].

Waltz teaches a connecting mechanism [Fig. 1, 10], each connecting mechanism being connected in series between an inverter and a motor [Fig. 1, 20] , and wherein each connecting mechanism [Fig. 1, 10] being configured to disconnect an inverter from a motor in response to receiving a control signal [Fig. 1, a control signal coming from control circuit 16].

All three teachings are analogous variable speed drives for distributing alternating electrical current to motors via a converter stage and an inverter stage. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Waltz, with the variable speed drive of Jadric, modified by Kumar, because it is well known to use a plurality of inverter/motor units, which avoids the use of a single large inverter that may be subject to failure, and it is also well known to connect a plurality of load control units to a control circuit to increase the ability of the system to handle the failure of one of the load/inverter branches.

Applicants respectfully traverse the rejection of claims 1-7 under 35 U.S.C. § 103(a).

Jadric, as understood, is directed to a variable speed drive (VSD) having a rectifier, an inverter, an inverter modulator, and inverter controller, and a control loop, for controlling a motor load, wherein the control loop reduces an amount of power transferred to the inverter during a voltage sag. The control loop may include a reference generator, a filter, a regulator, and a ride-through corrective algorithm.

Kumar, as understood, is directed to a system for determining rotor positions of an n-phase alternator driven by an inverter. The rotor position sensor of the system uses as inputs the stator terminal voltages of the alternator with respect to the negative power bus, which are already also provided as inputs to the inverter, and provides as outputs simulated rotor position states. Further, in operation, the rotor position sensor calculates the simulated alternator neutral voltage by adding the stator terminal voltages and dividing by n, and then determines the stator terminal voltages with respect to the simulated alternator neutral voltage by subtracting the simulated alternator neutral voltage from each respective stator terminal voltage. The simulated rotor positions states are provided to one or more inverter controllers which, in turn, provide firing signals to one or more corresponding inverters which are used to crank an engine.

Waltz, as understood, is directed to a system protecting motors from excessive current levels. The system responds to an overload level of current flowing to a load by disconnecting the load from its source of power by coupling the load to the source by a switch and a current sensing transformer in each electrical phase connected to the load. The apparatus periodically senses a first voltage at an output of a storage device in its power supply. If this sensed voltage is below a given level, current from a secondary winding of the current sensing transformer is applied to the storage device to restore the output voltage level.

In contrast, independent claim 1 recites a drive system for a plurality of motors comprising: a variable speed drive, the variable speed drive comprising: a converter stage to convert an input AC voltage to a DC voltage, the converter stage being configured to be electrically connectable to an AC power source; a DC link stage to filter and store energy from the converter stage, the DC link stage being electrically connected to the converter stage; an inverter stage comprising a plurality of inverters electrically connected in parallel to the DC link stage, each inverter of the plurality of inverters being configured to convert a DC voltage to an output AC voltage to power a corresponding motor of a plurality of motors, and each inverter of the plurality of inverters being configured to operate substantially independently of other inverters of the plurality of inverters; and wherein the converter stage is configured to provide a boosted DC voltage to the DC link stage and each inverter of the plurality of inverters is configured to provide an output AC voltage greater than the input AC voltage; and a plurality of

connecting mechanisms, each connecting mechanism of the plurality of connecting mechanisms being connected in series between an inverter of the plurality of inverters and a corresponding motor of the plurality of motors, and wherein each connecting mechanism being configured to disconnect an inverter from a corresponding motor in response to receiving a control signal.

> To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

See Manual of Patent Examining Procedure, 8th Edition, Revision 4 (MPEP), Section 2143.03.

Several of the features recited by Applicant in independent claims 1-7 are not taught or suggested by Jadric, Kumar and Waltz. First, Jadric does not teach or suggest that the converter stage is configured to provide a boosted DC voltage to the DC link as recited by Applicant in independent claim 1. The Examiner stated that Jadric teaches a converter stage configured to provide a boosted DC voltage to the DC link stage on Page 1 in Paragraph [0009] as recited by Applicant in independent claim 1. However, this paragraph does not identify that a boosted DC voltage to the DC link stage with converters, but instead teaches and suggests using external sources to boost the DC voltage to the DC link stage. In addition, Jadric only teaches a converter stage configured to convert AC power into DC power (*See* Jadric, paragraph [0023]) and does not teach or suggest boosting the DC voltage to the DC link stage. Further, Kumar and Waltz do not teach providing a boosted DC voltage to the DC link stage. Next, Jadric does not teach or suggest each inverter of the plurality of inverters configured to provide an output AC voltage greater than the input AC voltage as recited by Applicant in independent claim 1. The Examiner stated that Jadric teaches the inverter being configured to provide an output AC voltage greater than the input AC voltage. In contrast, Jadric only teaches an inverter controlled by a controller that creates variable voltage, variable frequency AC power and delivers it to an AC load, and does not teach or suggest providing an output AC voltage greater than the input AC voltage (*See* Jadric, paragraph [0025]). Further, Kumar and Waltz do not teach providing an output AC voltage greater than the input AC voltage as recited by Applicant in independent claim 1. There

is nothing in Jadric, Kumar and Waltz that teaches or suggests that the converter stage is configured to provide a boosted DC voltage to the DC link stage or that each inverter of the plurality of inverters is configured to provide an output AC voltage greater than the input AC voltage.

Next, Applicant submits that the Examiner has improperly combined Jadric, Kumar and Waltz.

> In making the assessment of differences, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 [218 USPQ 865] (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements."). The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result – often the very definition of invention.
>
> Section 103 precludes this hindsight discounting of the value of new combinations by requiring assessment of the invention as a whole. This court has provided further assurance of an "as a whole" assessment of the invention under §103 by requiring a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. In other words, the examiner or court must show some suggestion or motivation, before the invention itself, to make the new combination. See In re Rouffet, 149 F.3d 1350, 1355-56 [47 USPQ2d 1453] (Fed. Cir. 1998).

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Furthermore, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination." *See* MPEP, Section 2143.01.

The Examiner has provided no teaching or suggestion in Jadric that would indicate the desirability of incorporating into Jadric the multiple inverters of Kumar, nor has the Examiner cited any passage in Kumar that would indicate that the inverters of Kumar can be used in the

variable speed drive of Jadric. The Examiner makes statements that "it is well known to use a plurality of inverter/motor units, which avoids the use of a single large inverter that may be subject to failure, and it is also well known to connect a plurality of load control units to a control circuit to increase the ability of the system to handle the failure of one of the load/inverter branches." However, the Examiner's statements of what is known in the art is not a suitable basis for combining references. "A statement that modifications of the prior art to meet the claimed invention would have been "'well within the ordinary skill of the art at the time the claimed invention was made'" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)." *See* MPEP, Section 2143.01. Thus, Applicant respectfully submits that the Examiner has reached his conclusion based on the teachings in Applicant's specification, which is impermissible hindsight reasoning by the Examiner.

Further, Applicant submits that Kumar is non-analogous art with respect to Applicant's invention as recited in independent claim 1. As discussed above, Kumar is directed to a cranking system for an engine, specifically an internal combustion engine of a diesel electric locomotive. In contrast, Applicant's invention as recited in independent claim 1 is directed to a variable speed drive for multiple motors. The drive system is configured such that the inverters are disconnected from the corresponding motor in response to receiving a control signal. Applicant submits that one skilled in the art of variable speed drives would not look to a reference directed to a system for providing firing signals to one or more corresponding inverters in an engine, specifically an internal combustion engine of a diesel electric locomotive to solve problems in the variable speed drive field. In addition, the Examiner has cited no passage in Kumar that would indicate that the power system of Kumar could be used to a variable speed drive. Furthermore, Applicant has not been able to locate a passage in Kumar that teaches or suggest that the inverters in Kumar are actually part of a variable speed drive. Thus, Applicant submits that the Examiner has improperly combined Jadric and Kumar and as such Jadric, Kumar and Waltz cannot be used to reject independent claim 1.

Furthermore, in view of the above, dependent claims 2-7 are also believed to be distinguishable from Jadric, Kumar and Waltz and therefore are not anticipated nor rendered obvious by Jadric, Kumar and Waltz. In addition, claims 2-7 recite further limitations that distinguish over the applied art. In conclusion, it is respectfully submitted that claims 1-7 are not anticipated nor rendered obvious by Jadric, Kumar and Waltz and are therefore allowable.

B. Rejection of claims 8-24

The Examiner rejected claims 8-24 under 35 U.S.C. § 103(a) as being unpatentable over Jadric in view of Kumar and Waltz and in further view of Rafuse, Jr. et al. (U.S. Patent No. 5,797,729), hereafter referred to as "Rafuse."

Specifically, the Examiner stated that

> Claims 8-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jadric et al., in view of Kumar et al., and Waltz, Patent No. 5,283,708, and further in view of Rafuse, Jr. et al., Patent No. 5,797,729
>
> With respect to claims 8 and 19, Jadric teaches a variable speed drive to power the motor, the variable speed drive being configured to provide an output voltage greater than the input voltage to the variable speed drive [Fig. 1, rectifier 10 is a DC boost converter], the variable speed drive comprising a converter stage [Fig. 2, 10], a DC link stage [Fig. 2, 12] and an inverter stage [Fig. 2, 14], the inverter stage connected in parallel to the DC link stage and powering a motor [Fig. 1, 16]. However, Jadric does not disclose a plurality of inverters connected to a corresponding motor of a plurality of motors of the plurality of compressors and a plurality of contactors, connected in series between an inverter and a corresponding motor, and a control circuit.
>
> Kumar teaches an inverter stage comprising a plurality of inverters [Fig. 2, INV 5, INV 6], each inverter of the plurality of inverters being configured to converter a DC voltage to an output AC voltage to power a corresponding motor of a plurality of motors [Fig. 2, TM 5, TM 6].

Waltz teaches a connecting mechanism [Fig. 1, 10], each connecting mechanism being connected in series between an inverter and a motor [Fig. 1, 20], and wherein each connecting mechanism [Fig. 1, 10] being configured to disconnect an inverter from a motor in response to receiving a control signal [Fig 1, a control signal coming from control circuit 16].

The references do not teach providing a refrigeration system for a plurality of motors. However, Rafuse teaches a refrigeration system comprising a plurality of compressors [Fig. 1, 10, 12, 14], each compressor of the plurality of compressors being driven by a corresponding motor [Fig. 1, 34, 36, 38], the plurality of compressors being incorporated into at least one refrigerant circuit [Fig. 1], each refrigerant circuit comprising at least one compressor of the plurality of compressors [Fig. 1, 10, 12, 14], a condenser arrangement [Fig. 1, 22] and an evaporator arrangement [Fig. 1, 6] connected in a closed refrigerant loop

All four teachings are analogous variable speed drives for distributing alternating electrical current to motors via a converter stage and an inverter stage. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Jadric, Kumar, and Waltz, which teaches a variable speed drive and a plurality of contactors, with the refrigeration system having a plurality of variable speed compressors of Rafuse for the benefit of increasing the efficiency of the refrigeration system employing variable speed compressors.

Applicants respectfully traverse the rejection of claims 8-24 under 35 U.S.C. § 103(a).

Jadric, is directed to a variable speed drive (VSD) having a rectifier, an inverter, an inverter modulator, and inverter controller, and a control loop, for controlling a motor load, wherein the control loop reduces an amount of power transferred to the inverter during a voltage sag as discussed in greater detail above.

Kumar is directed to system for providing firing signals to an inverter for cranking an engine.

Waltz, is directed to a system protecting motors from excessive current levels, as discussed in greater detail above.

Rafuse, as understood, is directed to a refrigeration system controller capable of controlling a plurality of variable speed compressors that share a common discharge line and a common suction line. Each of the variable speed compressors includes a compressor drive with a variable frequency drive to generate the desired output speed of the compressor. The controller operates each variable speed compressor at a speed substantially the same as the other energized variable speed compressors by determining a required compressor capacity for a refrigeration load, and energizing a combination of the variable speed compressors that provides the required compressor capacity and has a higher energy efficiency ratio than other combinations of compressors.

In contrast, independent claim 8 recites a chiller system comprising: a plurality of compressors, each compressor of the plurality of compressors being driven by a corresponding motor, the plurality of compressors being incorporated into at least one refrigerant circuit, each refrigerant circuit comprising at least one compressor of the plurality of compressors, a condenser arrangement and an evaporator arrangement connected in a closed refrigerant loop; a variable speed drive to power the corresponding motors of the plurality of compressors, the variable speed drive being configured to provide an output voltage greater than the input voltage to the variable speed drive, the variable speed drive comprising a converter stage, a DC link stage and an inverter stage, the inverter stage having a plurality of inverters each electrically connected in parallel to the DC link stage and each powering a corresponding motor of a compressor of the plurality of compressors; a plurality of contactors, each contactor of the plurality of contactors being connected in series between an inverter of the plurality of inverters and a corresponding motor of a compressor of the plurality of compressors, and wherein each contactor being configured to enable or disable a connection between the inverter and the corresponding motor of a compressor of the plurality of compressors in response to receiving a control signal.

Independent claim 19 recites a drive system for a multiple compressor chiller system having a plurality of motors, the drive system comprising: a variable speed drive, the variable

speed drive comprising: a converter stage to convert an input AC voltage to a DC voltage, the converter stage being configured to be electrically connectable to an AC power source; a DC link stage to filter and store energy from the converter stage, the DC link stage being electrically connected to the converter stage; an inverter stage comprising a plurality of inverters electrically connected in parallel to the DC link stage, each inverter of the plurality of inverters being configured to convert a DC voltage to an output AC voltage to power a corresponding motor of a plurality of motors, and each inverter of the plurality of inverters being configured to operate substantially independently of other inverters of the plurality of inverters; and wherein the converter stage is configured to provide a boosted DC voltage to the DC link stage and each inverter of the plurality of inverters is configured to provide an output AC voltage greater than the input AC voltage; and means for isolating a motor of the plurality of motors from other motors of the plurality of motors in response to detecting a fault condition in the motor of the plurality of motors.

> To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Several of the features recited by Applicant in independent claims 8 and 19 are not taught or suggested by Jadric, Kumar, Waltz and Rafuse. First, Jadric, Kumar, Waltz and Rafuse do not teach or suggest that the variable speed drive is configured to provide an output voltage greater than the input voltage to the variable speed drive as recited in claim 8, nor that the converter stage is configured to provide a boosted DC voltage to the DC link stage and each inverter of the plurality of inverters is configured to provide an output AC voltage greater than the input AC voltage as recited in claim 19. First, the Examiner stated that Jadric teaches providing an output voltage greater than the input voltage to the variable speed drive as recited in claim 8. In contrast, Jadric only teaches an inverter controlled by a controller that creates variable voltage, variable frequency AC power and delivers it to an AC load, and does not teach or suggest providing an output AC voltage greater than the input AC voltage (*See* Jadric, paragraph [0025]).

Further, Kumar, Waltz and Rafuse do not teach providing an output AC voltage greater than the input AC voltage as recited by Applicant in independent claim 8. Next, the Examiner stated that Jadric teaches a converter stage configured to provide a boosted DC voltage to the DC link stage on Page 1 in Paragraph [0009] as recited by Applicant in independent claim 19. However, this paragraph does not identify that a boosted DC voltage to the DC link stage with converters, but instead teaches and suggests using external sources to boost the DC voltage to the DC link stage. In addition, Jadric only teaches a converter stage configured to convert AC power into DC power and does not teach or suggest boosting the DC voltage to the DC link stage (*See* Jadric, paragraph [0023]). Further, Kumar, Waltz and Rafuse do not teach providing a boosted DC voltage to the DC link stage as recited by Applicant in independent claim 19.

Next, Applicant submits that the Examiner has improperly combined Jadric, Kumar, Waltz and Rafuse.

> In making the assessment of differences, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 [218 USPQ 865] (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements."). The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result – often the very definition of invention.
>
> Section 103 precludes this hindsight discounting of the value of new combinations by requiring assessment of the invention as a whole. This court has provided further assurance of an "as a whole" assessment of the invention under §103 by requiring a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. In other words, the examiner or court must show some suggestion or motivation, before the invention itself, to make the new combination. See In re Rouffet, 149 F.3d 1350, 1355-56 [47 USPQ2d 1453] (Fed. Cir. 1998).

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Furthermore, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination." *See* MPEP, Section 2143.01.

To begin, the Examiner has improperly combined Jadric, Kumar and Waltz as discussed in detail above. Furthermore, the Examiner has provided no teaching or suggestion in Rafuse that would indicate the desirability of incorporating into Rafuse the multiple inverters of Jadric, Kumar and Waltz (which Applicant also disagrees with as discussed above), nor has the Examiner cited any passage in Jadric, Kumar and Waltz that would indicate that the inverters of Jadric, Kumar and Waltz can be used in the compressor drives of Rafuse. The Examiner states that the combination is "for the benefit of increasing the efficiency of the refrigeration system employing variable speed compressors." However, as each compressor drive in Rafuse incorporates its own variable frequency drive, Applicant submits that one skilled in the art would not make the combination proposed by the Examiner because the system in Rafuse already has the advantage or benefit identified by the Examiner. Thus, Applicant respectfully submits that the Examiner has reached his conclusion based on the teachings in Applicant's specification, which is impermissible hindsight reasoning by the Examiner.

Further, Applicant submits that Kumar is non-analogous art with respect to Applicant's invention as recited in independent claims 8 and 19. As discussed above, Kumar is directed to a cranking system for an engine, specifically an internal combustion engine of a diesel electric locomotive. In contrast, Applicant's invention as recited in independent claims 8 and 19 is directed to a variable speed drive for a chiller system. Applicant submits that one skilled in the art of variable speed drives would not look to a reference directed to a system for providing firing signals to one or more corresponding inverters in an engine, specifically an internal combustion engine of a diesel electric locomotive to solve problems in the variable speed drive field. In addition, the Examiner has cited no passage in Kumar that would indicate that the power system of Kumar could be used to a variable speed drive. Furthermore, Applicant has not been able to locate a passage in Kumar that teaches or suggest that the inverters in Kumar are actually part of a variable speed drive. Thus, Applicant submits that the Examiner has

improperly combined Jadric and Kumar and as such Jadric and Kumar cannot be used to reject independent claims 8 and 19.

Furthermore, in view of the above, dependent claims 9-18 and 20-24 are also believed to be distinguishable from Jadric, Kumar, Waltz and Rafuse and therefore are not anticipated nor rendered obvious by Jadric, Kumar, Waltz and Rafuse. In addition, claims 9-18 and 20-24 recite further limitations that distinguish over the applied art. In conclusion, it is respectfully submitted that claims 8-24 are not anticipated nor rendered obvious by Jadric, Kumar, Waltz and Rafuse and are therefore allowable.

CONCLUSION

In view of the above, Applicant respectfully requests reconsideration of the Application and withdrawal of the outstanding rejections. As a result of the amendments and remarks presented herein, Applicant respectfully submits that claims 1-24 are not anticipated by nor rendered obvious by Jadric, Kumar, Waltz and Rafuse and thus, are in condition for allowance. As the claims are not anticipated by nor rendered obvious in view of the applied art, Applicant requests allowance of claims 1-24 in a timely manner. If the Examiner believes that prosecution of this Application could be expedited by a telephone conference, the Examiner is encouraged to contact the Applicant. The Commissioner is hereby authorized to charge any additional fees and credit any overpayments to Deposit Account No. 50-1059.

Respectfully submitted,
McNEES, WALLACE & NURICK

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Dated: October 30, 2006